### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-004237

Address: 333 Burma Road **Date Inspected:** 08-Oct-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 1330 **Project Name:** SAS Superstructure **OSM Departure Time:** 2230 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes NA No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Fabrication

### **Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

### Heavy Bay 1

ABF representative Mr. Don Walton informed the QA Inspector that SSD1 Skin "A" stiffener to skin plate welds are ready for green tagging. The QA Inspector performed random visual inspections of SSDI Skin "A" stiffener to skin plate welds and verified the twelve areas that been identified yesterday as needing to be reworked are now in compliance with the project specifications. The QA Inspector documented QA Approval on green tag release document number 1000.

The QA Inspector performed random AWS D1.5 ultrasonic inspections of the following tower component welds:

### SSD1-SA61A/G-1A/B

ZPMC Inspection personnel had previously ultrasonically inspected and accepted these welds. Items observed appear to comply with project specifications. See the TL6027 ultrasonic test report for additional information.

Heavy Bay 2

# WELDING INSPECTION REPORT

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ABF informed the QA Inspector that the lower four meters of ESD1 Skin "D" stiffener to skin plate welds are ready for inspections and green tagging. ZPMC has requested that these areas be inspected first to allow installation of other plates that will obscure access to the stiffener plate welds. The QA Inspector performed random visual inspections of ESD1 Skin "DA" stiffener to skin plate welds and observed several weld locations that have areas in excess of 1 mm in depth below flush at the top of the welds and some welds have had the bottom toe ground and the weld profiles now have overlap conditions. ZPMC was informed and ZPMC performed repairs of these areas. The QA Inspector observed other portions of ESDI Skin "D" appear to have loose pieces of asbestos on the top of the skin plate adjacent to the stiffener welds. The QA Inspector informed ABF representatives that this asbestos is a health hazard and should be properly removed and disposed.

# OGB Bay 4

The QA Inspector performed random AWS D1.5 ultrasonic inspections of the following tower component welds:

ESD1-SA425E 3AB and 4AB

ESD1-SA424A 10AB

SSD1-SA95 1AB, SSD1-SA95 2AB

ZPMC Inspection personnel had previously ultrasonically inspected and accepted these welds. Items observed appear to comply with project specifications. See the TL6027 ultrasonic test report for additional information.



#### **Summary of Conversations:**

See above.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer